Pawan Upadhyay

Independent Scientist| Theoretical Physics & Interdisciplinary Researcher| Economic Science, Soul Science & Biblical Studies

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https://sites.google.com/view/discoveriesbypawanupadhyay/resume

Professional Summary

Independent scientist and interdisciplinary researcher working at the intersection of Physics, Economic Science, Soul Science, and Biblical Studies. I develop original theoretical frameworks with a focus on fundamental physical laws, economic stability theory, and philosophical questions about consciousness and spiritual reality. I value intellectual freedom, open inquiry, and global accessibility of research.

Professional Status

Independent Scientist and Researcher

Not affiliated with a formal academic institution; research conducted independently with full commitment to academic rigor, open science, and reproducibility.

Scientific Positioning

My work does not propose a replacement for General Relativity, but rather offers a physical interpretation and unifying framework that clarifies the causal role of pressure, energy density, and curvature across gravitational, cosmological, and thermodynamic phenomena.

Primary Scientific Contribution

Pawan Upadhyay's Pressure Curvature Law of Gravity (PPC Law)

Core Principle:

Mass–energy produces pressure, pressure generates curvature, and curvature governs motion.

This law provides a mechanical foundation for gravity, long sought since Einstein, by identifying pressure as the missing physical mechanism behind spacetime geometry.

Unified Phenomena through PPC Law:

- Gravity and spacetime curvature

- Time dilation as a pressure-dependent effect
- Entropy evolution in curved spacetime
- Centripetal and centrifugal forces via pressure gradients
- Centripetal force as combination force and centrifugal force as combination force
- Field force and surface force dynamics
- Pressure – curvature dynamics
- Gravitational pressure waves (alternative interpretation of gravitational waves)
- Microgravity
- Role of equation of state parameter in PPC gravity
- Relationship between Energy density and Pressure
- Role of 'field force and surface force'
- 'Field force and surface force' as forces of pressure
- Predictions of the PPC Law
- Interstellar object dynamics
- Cosmic expansion driven by large-scale pressure gradients
- Galactic and planetary binding
- Black hole formation as extreme pressure–curvature collapse
- Event horizons as pressure thresholds
- Wormholes as pressure-supported spacetime tunnels
- Multiverse interpretation via separated pressure domains
- Gravitational Pressure Fields
- Orbital stability and Orbital dynamics
- Light Pressure and Light as Curvature guided wave
- Creation of new 'stars and planets'
- Predictions of PPC Law
- Dark matter and Dark Energy

Key Contributions & Distinctions

- Proposed a unified physical framework (PPC Law) identifying pressure as the causal mechanism of spacetime curvature, providing physical intuition alongside General Relativity.
- Introduced the dual-force structure of gravity via field force (pressure gradient) and surface force (pressure acting on area).
- Reinterpreted gravitational waves as pressure–curvature waves within an equivalent relativistic framework.
- Provided pressure-based interpretations of time dilation, entropy, wormholes, microgravity, blackholes, galaxies, multiverse, cosmic expansion, dark matter, dark energy, light pressure and orbital dynamics.
- Creation of new equations

Research Methodology & Approach

- Development of original theoretical models grounded in established physical principles.

- Consistent alignment with experimentally verified results of General Relativity.
- Use of mathematical reasoning, conceptual analysis, and physical interpretation.
- Emphasis on causal clarity, physical intuition, and unification of concepts.
- Open peer engagement through public repositories and open-access platforms.

Research Areas

- Theoretical Gravity and Cosmology
- Pressure-Induced Spacetime Geometry
- Black hole and Wormhole Physics
- Galactic and Planetary Binding Mechanisms
- Microgravity and Interstellar Objects
- Energy Density and Equation-of-State in Gravity
- Entropy and Thermodynamics of Spacetime
- Gravitational Pressure Waves
- Gravitational Pressure fields

Interdisciplinary Research

Economic Science

- Theory of cash inflow and cash outflow
- Fund creation mechanisms
- Economic stability models
- Three Fund Stabilization Model
- Future Cash inflows theories
- Economic Science based on ‘Cash inflows and Cash outflows' theories with mathematical equations
- Solutions of the Economic Problems

Soul Science & Consciousness Studies

- Philosophical investigation of soul–body interaction
- Consciousness beyond physical reduction
- Role of Soul in ‘Human Body and Plant Body'
- Biological explanation
- Explanation of Soul Science in the language of Biology.
- Soul as Energy and Soul as internal force

Biblical Philosophy

- ‘Resurrection and Reincarnation’ studies in Christianity
- Distinction between soul, spirit, and physical body
- Difference between Hell and Satan

Publications & Open Access

- Research papers published with DOIs on Open Science Framework (OSF)
- Long-term preservation and public access via Archive.org

Archive Profile:

https://archive.org/details/@pawan_upadhyay

All research documents are openly available for academic and public use.

Open Science Statement

I am committed to open-access knowledge, transparency, and independent scientific inquiry. All my works are freely accessible to ensure global participation and long-term preservation of original research.

Research Vision

To advance a physically intuitive understanding of fundamental laws of nature, encourage interdisciplinary dialogue, and make original scientific thought globally accessible through open research.